

Vol. II

$\Sigma$  Fossil Plants and Animals  
 $\emptyset$  Recent Plants and Animals

Vol. I  $\Sigma 1$  to  $\Sigma 1000$

Vol. II  $\Sigma 1000$  to —

Sydney H. Daugherty  
San Jose State College  
San Jose,  
Calif.



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$\Sigma 1000$ 

Cretaceous

Collected in Berryessa Creek Area from the Oakland Conglomerate January 1954 by H. P. Harris. This specimen was collected as float from place below original outcrop.

 $\Sigma 1001$ 

Pliocene

Fossil wood from a Pliocene deposit near Beaumont, Riverside County, California. This small specimen contains burrow of *Cerambycid*(?) beetle larvae.

 $\Sigma 1002$  Otozamites?

Cretaceous

Pinna of a frond of a *Gymnocalymma* from Berryessa Creek area. Collected from Oakland Conglomerate Jan. 1954 by H. P. Harris. Specimen collected as float from place below original outcrop. In all probability, this plant grew on Continent of Cascadia and was carried down by streams and deposited with *Belmontia* in a marine deposit.

 $\Phi 1003$ 

Recent

Wood from Marshal Islands - Enewaitok at Enjebel Island - the Big Island  $\frac{1}{4}$  mile wide. The code name for this island was Zinnia in 1945. Collected by Walter C. Ivester

Σ 1004 *Cyathodendron Texanum* Eocene

A portion of the trunk of a tree fern

from the Eocene of Texas. Given to me by Cochran.  
 collected 2 miles No. of Emery Co. line out East of Hanksville Texas  
 go to left and find Jasper nodules Past Airport out of Hanksville, Col. Tom Riley  
 and west end of airport - Geodes with Selenite crystals good.

Σ 1005 *Astraspis desiderata* Ordovician

Collected by Sam Welles at

Canyon City, Colorado, in Harding sandstone  
 South Bank of Arkansas River west of Town.

The oldest vertebrate - an Ostracoderm Fish.

These bone plates are the oldest known bone!

Σ 1006 *Collenia* sp. Walcott Proterozoic - Beltian

Collected at Piegan Pass - Glacier National Park -  
 at an altitude of 7800 feet. Found in Siegh  
 limestone member. Collected by J. H. Edwards  
 Occurs as a 60 foot reef in this limestone member.

Σ 1007

Albo Sandstone - Permian

This plant was collected by Sam Welles  
 near Coyote, New Mexico, along with fossil  
 animals. Spores of the Ship lizard is common at  
 this locality. A photograph of exact locality  
 appears in "Upper Triassic flora of Arizona".

The locality is about 300 feet to the right of where  
 the photograph was made. This specimen is  
 a portion of a frond showing forking.

(P 3632 is the University of California number)

Σ 1008

*Neuropteridium*

Albo. Sandstone - Permian

Same locality as Σ 1007. (L of C - P 3635)



- $\Sigma 1009$  *Walchia + Callipteris* Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$ . (University of Calif number P 3633)  
 The *Walchia* branches also have a cone on side opposite the number.
- $\Sigma 1010$  *Callipteris* Also Sandstone - Permian  
 Same ~~as~~ locality as  $\Sigma 1007$  (University of Calif. No. P 3632)
- $\Sigma 1011$  *Calamites* Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (U of C. No. P 3636)
- $\Sigma 1012$  Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (Not numbered by U.C.)
- $\Sigma 1013$  *Callipteris* sp. Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$ . (Univ. of Calif. No. P 3632)
- $\Sigma 1014$  *Neuropteridium* Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$ . (Univ. of Calif. No P 3632)
- $\Sigma 1015$  *Callipteris* sp. Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$ . (Univ. of Calif. No. P 3632)

$\Sigma 1016$  *Callipteris* Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C. no. P3632)

$\Sigma 1017$  *Callipteris* Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C. no number)

$\Sigma 1018$  *Walchia* Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C no. P3632)

$\Sigma 1019$  *Brachyphyllum?* Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C no. P3632)

$\Sigma 1020$  Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C no. P3632)

$\Sigma 1021$  *Callipteris* sp. Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (U of C No. P3632)

$\Sigma 1022$  Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (P 3632)

$\Sigma 1023$  *Neuropteridium* sp. Also Sandstone - Permian  
Same locality as  $\Sigma 1007$  (P3632)



- $\Sigma 1024$  ~~Seed~~ *Gaspolithus* sp. Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (Cal. No. P 3632)
- $\Sigma 1025$  *Neuropteridium* Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (Cal. No. P 3632)
- $\Sigma 1026$  *Walchia* + (Tapites?) Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (no. number)
- $\Sigma 1027$  *Callipteris* sp. Also Sandstone - Permian  
 Same locality as  $\Sigma 1007$  (Univ. of Calif. No. P 3632)
- $\Sigma 1028$  *Pecopteris* Pennsylvanian  
 Collected at Mazon Creek near Morris, Illinois.
- $\Sigma 1029$  *Sigillaria* and *Lepidodendron* Pennsylvanian  
 Obtained from Indiana coal. On one side stem of *Sigillaria* and on the other side *Lepidodendron*
- $\Sigma 1030$  *Sphenophyllum* Pennsylvanian  
 Collected by Ward's Nat. Sci. Est. at Ottowa, Kansas  
 The fossil shows a short section of stem with leaves.
- $\Sigma 1031$  *Lepidophyllum majus* Pennsylvanian  
 Collected at Mazon Creek, Illinois.  
 Small leaf of *Lepidodendron*.
- $\Sigma 1032$  *Neuropteris* Pennsylvanian  
 Impression of a frond. Collected by Ward Co.  
 at Mazon Creek, Illinois.

- Σ 1033 *Alathopteris* sp. Pennsylvanian  
Collected by Ward Co. at Ottawa, Kansas  
Tip of pinna of frond showing pinnules.
- Σ 1034 *Neuropteris* sp. Pennsylvanian  
Collected at Mazon Creek by Ward Co.  
Large amplexae of frond.
- Σ 1035 *Pecopteris* sp. Pennsylvanian  
Collected by Ward Co. at Mazon Creek, Illinois.
- Σ 1036 *Neuropteris* sp. Pennsylvanian  
Portion of frond collected by Ward Co. at  
Mazon Creek, Illinois.
- Σ 1037 *Lepidodendron* sp. Pennsylvanian  
Small branch of *Lepidodendron*. Locality unknown.
- Σ 1038 *Annularia* sp. Pennsylvanian  
Leaves of a *Calamites*. Col. by Ward Co.  
Locality unknown.
- Σ 1039 *Stigmaria* Pennsylvanian  
Rhizophore of *Lepidodendron*. Locality and  
collector unknown.
- Σ 1040 *Stigmaria* Pennsylvanian  
Rhizophore of *Lepidodendron*. Locality and  
collector unknown.
- Σ 1041 *Stigmaria* Pennsylvanian  
Rhizophore of *Sigillaria*. Locality and  
collector unknown. Collected at Crane, Indiana  
by Ward Co.
- Σ 1042 *Calamites* Pennsylvanian  
Pith cast of *Calamites*. Collected by Ward Co.  
Locality unknown.



- $\Sigma 1043$  *Cyathodendron* Eocene of Texas  
 Section of a fern stem from Texas. Possibly same locality as  $\Sigma 1004$ . Sent to me by Tom Riley.
- $\Sigma 1044$  *Psaronius* sp. ~~Triassic~~ <sup>Rothliegendes</sup> Permian  
 This specimen was given to me by Dr Wieland at Yale University (Described by Cotta in 1832)
- $\Sigma 1045$  *Quercus prelobata* Condit Mio-Pliocene  
 This was collected at Remington Hill, California and given to me by Dr Ralph W. Chaney
- $\Sigma 1046$  *Hyperbaena diforma* Potbury Upper Eocene  
 Collected at La Porte, California by Mrs Susan Potbury Gilmore. Given to me by Dr Ralph W. Chaney.
- $\Sigma 1047$  *Quercus pseudo-lyrata* Lx. Middle Miocene  
 Collected at Stinking Water, Oregon, by Dr R.W. Chaney.
- $\Sigma 1048$  *Platanophyllum whitneyi* (Lx) Mac G Middle Eocene  
 Collected at Chalk Bluffs, California by Harry Mac Ginitie
- $\Sigma 1049$  *Tetracera castaneaefolia* Mac G. Lower Oligocene  
 Collected at Weaverville, California, by Harry Mac Ginitie. Given to me by Dr R.W. Chaney



- Σ 1050 *Olyptostrobus oregonensis* Middle Miocene  
Collected at Stinking Water, Oregon, and  
given to me by Dr Ralph W. Chaney
- Σ 1051 *Liquidamber californicum* Lx. Middle Eocene  
Collected by Dr Ralph W. Chaney at  
Chalk Bluffs, California.
- Σ 1052 *Platanus coloradensis* Kn. Middle Eocene  
Collected at Chalk Bluffs, California  
Given to me by Dr Ralph W. Chaney.
- Σ 1053 *Chaetoptelea pseudo-fulva* (Lx.) Mac G. Mid Eocene  
Collected by Harry Mac Ginitie at  
Chalk Bluffs, California. Given to me  
by Dr R W Chaney.
- Σ 1054 *Quercus distincta* Lx. Middle Eocene  
Collected by R W. Chaney at Chalk Bluffs,  
California.
- Σ 1055 *Rhus mixta* Lx. Middle Eocene  
Presented to me by Dr Ralph W Chaney.  
Collected at Chalk Bluffs.
- Σ 1056 *Myrica* sp. Miocene  
Bought from Ward's Natural Science Est. Inc.  
Collected at Florissant, Colorado.
- Σ 1057 *Alnus harneyana* Chaney Middle Miocene  
Collected by Dr Ralph W. Chaney at  
Stinking Water, Oregon.
- Σ 1058 *Castanopsis perplexa* (Kn) Brown Mid. Miocene  
Collected at Stinking Water, Oregon, and given  
to me by Dr. R. W. Chaney


- $\Sigma$  1059 *Cinnamomum dilleri* Kn. Upper Eocene  
 Collected by Susan Dilmore and given me  
 by R.W. Chaney. Collected at La Porte, California.
- $\Sigma$  1060 *Persea pseudo-carolinensis* Lx. Mio-Pliocene  
 Collected at San Pablo, California,  
 Presented by Dr. R.W. Chaney.
- $\Sigma$  1061 *Betula multinervis* Jennings Mio-Pliocene  
 Presented by Dr. Chaney. Collected at  
 San Pablo, California.
- $\Sigma$  1062 *Hyperbaena diforma* Potbury Upper Eocene  
 Collected by Susan Potbury Dilmore and  
 given to me by Dr. R.W. Chaney. Collected at  
 La Porte, California.
- $\Sigma$  1063 *Engelhardtia nevadensis* Mac G. Middle Eocene  
 Collected at Chalk Bluffs, California,  
 by Harry W. Mac Ginitie and presented by  
 Dr. Ralph W. Chaney.
- $\Sigma$  1064 *Gordonia egregia* (Lx) Mac G. Middle Eocene  
 Collected at Chalk Bluffs, California,  
 by Harry W. Mac Ginitie and presented by  
 Dr. R.W. Chaney.
- $\Sigma$  1065 *Quercus remingtoni* Condit Mio-Pliocene  
 Collected by Carlton Condit at Remington Hill,  
 California and presented by Dr. R.W. Chaney. [P 3935]



- Σ 1066 *Platanus paucidentata* Dorf. Mio-Pliocene  
Collected at Remington Hill, California  
by Erling Dorf and presented by Dr Ralph W. Chaney
- Σ 1067 *Metasequoia heerii* [also *Alnus*] Oligocene  
Collected at Twickenham, Oregon, by  
Dr Ralph W. Chaney.
- Σ 1068 *Leguminosites falcatum* Pt. Upper Eocene  
Collected by Susan Talbot Dilmore at  
~~La~~ La Porte, California. Presented by Dr R.W. Chaney
- Σ 1069 *Platanus dissecta* Lx. Mio-Pliocene  
Collected by Dr Chaney at San Pablo, California.
- Σ 1070 *Laurophyllum litseaefolia* Mac G. Mid. Eocene  
Collected at Chalk Bluffs and presented  
by Dr Ralph W. Chaney.
- Σ 1071 *Canarium californicum* (Lx) Mac G. Middle Eocene  
Collected at Chalk Bluffs and presented by  
Dr Ralph W. Chaney.
- Σ 1072 *Mahonia simplex* (Newb.) Arnold Middle Miocene  
Collected at Stinking Water, Oregon, and  
presented by Dr Ralph W. Chaney.
- ~~Σ 1073~~ ~~*Alnus coriaticola*~~  
~~*Salix hesperia* (Kn) Condit~~ Mio Pliocene  
Collected at Remington Hill, California  
- Presented by Dr Chaney.



- Σ 1073 *Alnus corralia* Lx ~~San~~ Mio-Pliocene  
Collected at San Pablo, California and presented  
by Dr Ralph W Chaney.
- Σ 1074 *Salix hesperia* (Kn) Condit Mio-Pliocene  
Collected at San Pablo, California by Dr R.W Chaney  
and Carlton Condit.
- Σ 1075 *Tabernaemontana intermedia* Potbury Upper Eocene  
Collected by Susan Potbury Gilmore at  
La Porte, California.
- Σ 1076 *Phyllites cordiaefolia* Mac G. Middle Eocene  
Collected by Harry D Mac Ginitie at  
Chalk Bluffs, California. Presented by Dr R.W Chaney
- Σ 1077 Small branches of a Lycopoid and a Fern Rhizome Triassic  
Collected by Guy E. Hagen at Kingman, Arizona.  
Hagen's address is Box 695 Kingman, Ariz. These are  
a fern rhizome, and branches of a Lycopoid closely related  
to *Lepidodendron*. They are common in the Chinle, Triassic.  
See Upper Triassic Flora of Arizona. 7/31/47.
- Σ 1078 *Neuropteris* Potterville-Pennsylvanian  
Small amplexes collected at Minersville, Pennsylvania  
by Bock. Presented to me at Yale University by Bock.
- Σ 1079 *Cycadiodea* sp (Monanthesia?) Cretaceous  
Collected in Pleasant Member of Ladd Formation  
in Santa Ana Mts in Southern, California.  
Sent to me by Dr Ralph W Chaney March 8, 1950  
Also see Σ 690

- Σ 1080 *Pityospermum* sp. Lockatong - Upper Triassic  
 Collected at Swynnedel, Pennsylvania,  
~~Lockatong~~ by Bock. This is a cone scale!  
 with two seed. 
- Σ 10817 *Stachytarphus* (Strobilus) Pottsville, Pennsylvanian  
 Collected at Minersville, Pennsylvania, by  
 Bock.
- Σ 1082 *Walchia* (Leaves) Pennsylvanian  
 Collected by Ward Co. at Garnett, Kansas
- Σ 1083 *Mahonia simplex* (Newb.) Arnold Mid-Miocene  
 Collected at Stinking Water, Oregon, and  
 presented by Dr Ralph W. Chaney.
- Σ 1084 *Quercus dayana* Knowlton Mid-Miocene  
 Collected at Stinking Water, Oregon, and  
 presented by Dr Chaney.
- Σ 1085 *Sequoia Langsdorfii* (Brown) Heer Middle Miocene  
 Collected at White Hills Locality at  
 Mascall, Oregon, and presented by Dr Ralph W Chaney
- Σ 1086 Monocot Stem Tertiary of Texas  
 Collected in Texas by Ward Co.



- Σ1087 *Girvanella ocellata* Ordovician  
Collected by Ward Co. at Richmond, Virginia.  
Ordovician member of Blue-Green Algae.
- Σ1088 *Cercidophyllum elongatum* Brown Mid-Eocene  
Collected at Chalk Bluffs, California and  
presented by Dr Ralph W. Chaney.
- Σ1089 *Cinnamomum dilleri* Kn. Upper Eocene  
Collected at La Porte, California and presented  
by Dr Ralph W. Chaney.
- Σ1090 *Persea pseudo-carolinensis* Lx. Upper Eocene  
Collected at La Porte, California, and presented  
by Dr Ralph W. Chaney.
- Σ1091 *Persea princeps* Schimper Mio-Pliocene  
Collected at San Pablo, California by  
Condit and presented to me by Dr Chaney.  
A portion of leaf of *Platanus dissecta* is also  
present.
- Σ1092 *Palmoxylon* (Roots) Pliocene  
Fossil palm roots collected at the  
Dutch Cleanser Mine in Mojave Desert.  
Presented to me by Wayne Karchner.
- Σ1093 *Quercus nevadensis* Lx. Upper Eocene  
Collected at La Porte, California, and  
presented by Dr Ralph W. Chaney.



Σ 1094

Triassic?

Petrified roots or stems collected in Funeral Mountains by Quintin Aune of the U.S. Bureau of Mines. Address 1429 Appraisers Building, 630 Sansome St., San Francisco 11, California.

The location in Funeral Mountains  
Ash Meadows Quad.  
 $26^{\circ}5^E$  SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  Sec. 19

Σ 1095 Coal Balls

Ordovician

Collected by Chas. Merriam in Roberts Mts of Nevada. See paper Merriam + Daugherty - Protophycean Algae in Ordovician of Nevada. (1938). The radiolarians etc., have never been described. Locality - Slightly over three miles east of the summit of Roberts Creek Mountain (Roberts Mts Quadrangle) on the east side of Virini Creek Canyon and about seven-tenths of a mile northwest of canyon mouth. The nodules are most abundant in the wall of an old tunnel driven eastward on the east side of the canyon.

Σ 1096

Jurassic?

Dug up by the Cuturu dredge near the Pueblo of Cuturu, Antioquia, Colombia, South America. At the time the dredge was digging in the old stream terraces of the Nechi Valley. This specimen was collected by H. Dillmeister who believes these stream terraces to be Jurassic in age, but he was ~~by no means certain~~ not sure his age determination correct.

Σ 1097 *Schilderia adamanica*? Upper Triassic -  
Collected in the Chinle near the Henry Mountains  
in Utah. Collected by Fred Cochran and Watson.

Σ 1098 Brown Coal Carbonaceous  
This is the famous German Brown Coal which was  
collected at Chamnitz, Germany. Collector unknown.

Σ 1099 *Polyporites wardii* Daugherty Chinle - Triassic  
This stem of *Araneosiphon arizonicum* contains a  
pecky rot that resembles a *Polyporus* on Incense Cedar.  
I named it wardii because ~~Ward~~ Lester Ward was  
first to describe it. He thought it contained resin  
pockets and did not know it was a heart rot.  
For details see my paper on Upper Triassic of Arizona.  
This specimen was collected in the Chinle near  
the Henry Mountains in Utah. Collected by

Σ 1100 *Lepidodendron* sp. Pennsylvanian  
Potterville (Middle)  
This specimen was collected by the Ward Co.,  
in Mingo County, West Virginia.  
This specimen shows branches with fine leaf pads  
and also leaves.

Σ 1101 *Araneosiphon*? Upper Triassic of Utah  
Fossil wood found with *Pteruchus* fronds, and  
fronds of *Otozamites*. Collected 6 miles south of  
Fruita, Utah, above road where it turns to enter  
Capital Dome.  
Cycad leaves from the Lower Chinle about 30 feet above  
channel sands (Shinarump) which in turn lies on  
topmost Moenkopi. Col. by C.L. Camp & John Biddle  
July 3, 1950



Σ1102 Palm - Root & Stem Pliocene-Ricardo  
Col. at Mule Canyon. Yermo, Calif

Σ1103 Metasequoia Tertiary  
Collected in Alaska and sent to me by  
Dr R. W. Chaney for identification

Σ1104 Platanus sp. Tertiary  
Col. R. J. Rodin 14 miles NE. of  
San Miguel, California.

Σ1105 Arctostaphylos sp. Eocene? Pleistocene?  
Collected in Wasco district and presented  
by Miss Ackerman. "Section 27 in T 25 S -  
R 18 E"

"In a small washed out, or over, place in  
the early Eocene. just below where an  
upthrust has faulted the Tertiary up  
through and above the Eocene."

"Certainly originated in one of these measures  
among debris of about same sizes and color  
but angular or flat."

The fruit resembles fruit of Arctostaphylos  
collected at Carpinteria by Chaney and Mason.  
Since the locality is close to that of Chaney and  
Mason the chances are that the fruits are  
from Pleistocene deposits that have been  
eroded away from above the Eocene. L.H.D.

Σ1106 Araucarioxylon arizonicum Chinle-Triassic  
Small hand specimen collected in Petrified Forest  
National Monument near Holbrook, Arizona, by Van Cleave and Daugherty  
on July 12, 1957. The specimen shows fine cell structure



$\Sigma 1107$  Woodwardia Chinle - Triassic  
 Donated to me by man who runs Petrified Wood Products Co.  
 one mile east of Kingman, Arizona, North of Highway 66.  
 This specimen shows good structure and was collected near  
 Winslow, Ariz. by owner of above mentioned company.

$\Sigma 1108 A$  *Palmoxylon* (Adventitious Roots) Pliocene?  
~~Excelsiorides~~ ~~Adventitious Root~~ ~~Excelsiorides~~  
 Ailanthus Bud developing adventitious roots [Saved Sections - 2]  
 Location: Near Harvard, a Union Pacific R.R. Station  
 Sect. 22, T10N, R3E, S8d B.L+M  
 Source from exposures revealed in surface-mining  
 operations in search of uranium-carrying rocks.  
 Age Tertiary - probably Pliocene(?).  
 Sent in by Kenneth B. Darnes from San Bernardino, Calif.  
 Palmwood found in Calico Mts nearby. This locality  
 near Harvard is some 22 miles northeast of Barstow  
 adjacent to U.S. Highway no. 91, in San Bernardino County.  
 Above described in letter of April 8, 1950.  
 $\Sigma 1108 B$  portion of Frond showing Transverse Sections  
 of Pinnules.

$\Sigma 1109$   
 Collected in a gravel quarry in Feb., 1953  
 by Leonard Henningan. One of the boy paleontologists of  
 Haywood, Calif. The quarry is 1 mile NW of Monrovia, La.,  
 on Highway no. 88.

$\Sigma 1110$   
 Same as  $\Sigma 1109$ .

$\Sigma 1111$   
 Same as  $\Sigma 1109$ .

$\Sigma 1112$ Same as  $\Sigma 1109$  $\Sigma 1113$ 

Palmoxylon

Collected by Leonard Henningan 20 miles southeast of Monroe, La., in a sandy clay with many hollow ironstone concretions. Oil wells are in the vicinity.

 $\Sigma 1114$ 

Collected by Leonard Henningan one mile NW of Monroe, La., on Highway 88. Same locality as  $\Sigma 1109$ ,  $\Sigma 1110$ ,  $\Sigma 1111$ , and  $\Sigma 1112$ .

 $\Sigma 1115$ Same locality as  $\Sigma 1114$ . $\Sigma 1116$ Same locality as  $\Sigma 1114$ . $\Sigma 1117$ 

Collected by Leonard Henningan 20 miles SE of Monroe, La., in a sandy clay. Oil wells are in the vicinity. Same locality as  $\Sigma 1113$ .



$\Sigma 1118$ 

Collected at Leesville, La. by unknown collector.  
Sent in by Mrs Gladys Gilmartin 787 W 7<sup>th</sup> St.,  
Upland, Calif. Sent in May 12, 1951.

 $\Sigma 1119$ 

Neocalamites

Upper Triassic

Branches replaced by iron and should  
show structure. Collected by L.H. Daugherty  
in Poles sandstone on Poles Mesa approximately  
3 miles from Coyote, New Mexico. June 1935.  
no structure

 $\Sigma 1120$ 

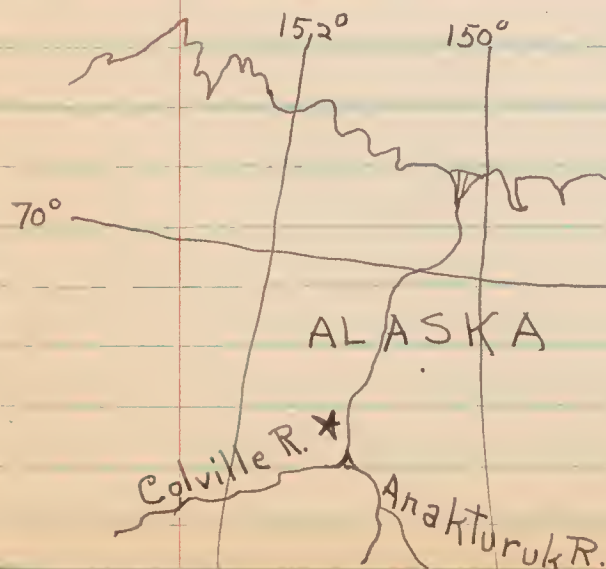
Cretaceous

Collected by Mrs L.F. Daniels in a  
clay cliff at Bay Head in Martha's Vineyard.

 $\Sigma 1121$ 

Upper Cretaceous?

Specimen found in gravel bar and is water worn.  
Material abundant and comes from bluffs made of sandstone, shale  
limestone and coal. Col. by Henry B. Post-1336 Webster St., Palo Alto, Calif.



Collected about 8 miles  
below junction of  
Colville and Anakturuk  
Rivers.

Σ1122 Sequoia (dakotensis?) Tertiary  
 Collected in Wyoming by  
 Cone replaced by iron.

Σ1123 Tertiary?  
 Collected by at  
 Lakeview, Oregon. Gymnosperm wood  
 that is petrified ~~but~~ shows macerated tracheids.

Σ1124 Triassic - Chinle  
 Fossil twigs collected in Petrified Forest by  
 Van Cleave and Daugherty July 1957

Σ1125 Triassic - Chinle  
 Fossil rhizome of fern collected in Petrified Forest  
 National Monument by Van Cleave and Daugherty - July 1957.

Σ1126 Araucarioxylon arizonicum Chinle - Triassic  
 Collected in Petrified Forest National Monument  
 by Van Cleave and Daugherty. July - 1957.

Σ1127 Coal Ball Pennsylvanian  
 Coal Ball collected in 1950 by L.H. and  
 Suzanne Daugherty at coal mine near  
 Puggar, Indiana.



Σ 1128 *Schilderia Adamanica* Chinle - Triassic

This specimen was sent in to the Chicago Natural History Museum, Roosevelt Road and Lake Shore Drive, Chicago 5, Illinois. The specimen was presented by and sent for identification by Dr. Theodore Just.

Σ 1129 *Dadoxylon chaneyi* Chinle - Triassic

These slides are slides of the Type specimen. They were sent to the Petrified Forest National Monument at Holbrook, Arizona. The other slides of *Dadoxylon chaneyi* are in the collection of the University of California - Dept. of Paleontology.

Σ 1130 *Araucaroxylon* Triassic

Wood collected by Dr. Simon Muller of Stanford at the north end of the Sonoma Range near Winnemucca, Nevada. These petrified specimens were found in the marine formation along with a Carnic invertebrate fauna. This corresponds to the Star Peak group. Fossil woods were also found in the Luning formation which also carries a Carnic invertebrate fauna.

Σ 1131 *Osmundites desertopictensis* (Osmundaceae) Chinle - Triassic

This petrified stem was collected by Chas. Jacobs in the Painted Desert, Petrified Forest National Monument, Holbrook, Arizona. It contains leaf pads and is probably a new species for this region. This fern is a member of the Osmundaceae. Slides made [Van Cleave #4] Slides made.

Σ1132

Schielderia adamanica Chinle-Triassic

Portion of petrified stem from near base  
~~of bark~~ showing fluting and phloem included.  
 Collected in Petrified Forest National Monument  
 at edge of Painted Desert. Col. by Van Cleave and Daugherty  
 in July 1957.

Σ1133

Schielderia adamanica Chinle-Triassic

Same locality as above showing wood  
 with phloem included.

Σ1134

Templekya sp. Lower Cretaceous? or Chinle?

Collected from gravels on Lithodendron  
 (Carrizo) wash just west of the Painted Desert  
 section of the Monument, near the site of the old  
 stage station. (Van Cleave nos. 11A + 11B) Petrified Forest  
 National Monument, Holbrook, Arizona.

Σ1135

Woodworthia Chinle-Triassic

Collected at the west foot of Blue Mesa,  
 Petrified Forest National Monument, by Van Cleave + Daugherty  
 (Van Cleave no. 16)

Σ1136

Chinle?? ?

Collected by Van Cleave from river gravels  
 north of Puerco River and east of Monument Road,  
 Petrified Forest National Monument. July 1957



Σ 1137

Palmoxylon sp.

Cretaceous?

Fossil palm wood collected by Philip F. Van Cleave in "river gravel" on top of Blue Mesa near the south "break off". Sent in for identification on Nov 12, 1957.

Σ 1138

Ameura (major?)

Pennsylvanian - or Permian

~~Cryptocephalus~~~~Upper Cambrian~~

Collected on a pebble from river gravels on top of Blue Mesa. This trilobite was collected by Van Cleave at same locality as Σ 1137.

Σ 1139

Woodworthia

Chinle - Triassic

Collected by L. H. Daugherty in "wood yard" of Chas. Jacobs on Highway 166 near Painted Desert and was originally collected by Jacobs in Painted Desert. Phyllotaxy appears to be  $\frac{8}{21}$  [Van Cleave no. 9]

Σ 1140

Tertiary?

From "river gravels" north of Puerco River and east of Monument Road. Petrified Forest National Monument, Holbrook, Arizona. A hard wood that could not be older than upper Cretaceous.

Σ 1141

Tertiary?

Collected by Van Cleave from gravels on Lithodendron (Carrizo) Wash just west of the Painted Desert Section of the Petrified Forest National Monument. A hardwood not older than Cretaceous.

$\Sigma 1142$ Osmundites sp.

Chinle - Triassic

A fern rhizome (or stem) collected by Van Cleave and Dangherly in July 1957 from vicinity of the "Jeepers" north west of Blue Mesa. Slide made

 $\Sigma 1143$ 

Chinle - Triassic

A stem that shows imperfect preservation - possibly some type of heart rot. Collected by Van Cleave at Chas. Jacobs "wood yard" on Highway 66 near the Painted Desert and collected by him in Painted Desert.

 $\Sigma 1144$ Cycadeoidea sp.

Chinle - Triassic

Collected near Jim Camp Wash in the Headquarters area. Petrified Forest National Monument, Holbrook, Arizona. Collected by Van Cleave. This may be a cycad. Slides made poor preservation but a good cycad.

 $\Sigma 1145$ Woodworthia

Chinle - Triassic

Obtained from Chas. Jacobs on Highway 66 near Painted Desert. This was collected in vicinity of Painted Desert by Jacobs. This specimen appears to have pith. The phyllotaxy appears to be  $\frac{8}{21}$ .



- $\Sigma$  1146 *Woodworthia* Chinle-Triassic  
 Collected by Van Cleave and Daugherty at Chas. Jacobs "wood collection" on Highway 66 near Painted Desert. Collected in Painted Desert Vicinity by Chas. Jacobs.
- $\Sigma$  1147 *Schilderia* ? Chinle-Triassic  
 Obtained in Chas. Jacobs "wood yard" on Highway 66 by Daugherty and Van Cleave. Collected in Painted Desert by Chas. Jacobs. This specimen appears to have pith preserved.
- $\Sigma$  1148 *Woodworthia* Chinle-Triassic  
 Collected by Van Cleave from highway level North East of the summit of the Flat-Tops Petrified Forest National Monument, Holbrook, Arizona. (Van Cleave no. 17)
- $\Sigma$  1149 *Palmoxylon* Cretaceous or Tertiary  
 Collected by Van Cleave in "river gravels" north of the Puerco River and east of the monument road. Petrified Forest National Monument, Holbrook, Arizona.
- $\Sigma$  1150 *Populus* ? Tertiary  
 From river gravels north of Puerco River and east of the Monument road. Collected by Philip F. Van Cleave. Petrified Forest National Monument. Holbrook, Arizona.

$\Sigma 1151$ 

Woodworthia

Chinle-Triassic

Obtained from Chas. Jacobs "wood yard" on Highway 66 near Painted Desert. Collected in Painted Desert by Chas. Jacobs. This specimen represents a section just below where tree forked and has two centers.

 $\Sigma 1152$ 

Chinle-Triassic

Obtained from Chas. Jacobs "wood yard" on Highway 66 near Painted Desert. Collected in Painted Desert by Jacobs. This specimen appears to have some copper replacement.

 $\Sigma 1153$ 

Collected by Van Cleave from river gravels north of the Puerco River and east of Monument Road.

 $\Sigma 1154$ 

Collected by Van Cleave from river gravels north of the Puerco River and east of Monument Road

 $\Sigma 1155$ 

Woodworthia

Chinle-Triassic

From Chas. Jacobs "wood yard" on Highway 66. Col. by Jacobs in Painted Desert.

 $\Sigma 1156$ 

Palmoxylon

Cretaceous or Tertiary

Collected by Robert Hamby at Millville Plains about 12 miles east of Redding, California



- $\Sigma$  1157 *Populus* ? Tertiary  
 Collected at Millville Plains about 12 miles east of Redding, California. - Same locality as  $\Sigma$  1156
- $\Sigma$  1158 *Metasequoia* Miocene  
 Collected by Robert Hamby at Calistoga, California
- $\Sigma$  1159 *Araucarioxylon arizonicum* Chinle-Triassic  
 This specimen collected by members of Museum of Northern Arizona on Woodruff Butte is a specimen that shows much decay before petrification occurred. [G2.2701]
- $\Sigma$  1160 *Araucarioxylon arizonicum* Chinle-Triassic  
 This specimen was collected at Cameron and represents a wood infected by a fungus (heart rot) before petrification. Collected by members of the staff of the Museum of Northern Arizona. [G2.6583]
- $\Sigma$  1161 *Populus* sp. Mancos Shale - Cretaceous  
 A specimen collected by Museum of Northern Arizona at Black Mesa. [(G2.6945) Museum number].
- $\Sigma$  1162 *Populus* sp. Verde Lake Beds? - Cretaceous?  
 Collected on Lower Beaver Creek by staff of Museum of Northern Arizona. [Museum no. = G2.1541]

$\Sigma 1163$ *Salix* sp.

Mullholland? Tertiary

Leaf collected by Maddock in vicinity of tunnel between Berkeley and Orinda (Strawberry Canyon).

 $\Sigma 1164a$ *Itopsidema vanceleavei* $\Sigma 1164b$  $\Sigma 1164c$  $\Sigma 1164d$  $\Sigma 1164e$  $\Sigma 1164f$  $\Sigma 1164g$  $\Sigma 1164h$  $\Sigma 1164i$  $\Sigma 1164j$  $\Sigma 1164k$ 

~~*Vanceleavea* sp.~~ (Osmundaceae) Chinle-Triassic

Specimens of a number of the Osmundaceae collected on January 10, 1958 by Philip VanCleave. Collected approximately  $\frac{1}{2}$  mile north of Philip VanCleave's house. The house is west of the second forest and approximately four miles N.E. of the Camp grounds and museum at the Rainbow Forest. [See VanCleave's letter of January 16, 1958]. This tree fern is a different species from the Jacob's specimen found in the Painted Desert. Jacob's specimen is No  $\Sigma 1131$  [Slides made]

[Note. The name *Vanceleavea* is preoccupied and this must be given a new generic name. VanCleave is the generic name of a living composite.] New name above [Paper published in Amer. Jour. of Bot.]

 $\Sigma 1165$ *Williamsonia* sp.

Chinle-Triassic

Collected on March 21, 1958 by Philip VanCleave at the foot of Blue Mesa in the Petrified Forest National Monument, near Holbrook, Arizona. For further information see VanCleave letter of March 21, 1958. The specimen was a short piece of the stem covered by scale like leaves and has a rather large pith. A scar that appears to be depression where a branch dropped out of the stem and other characteristics indicate a member of the Williamsonias. Slides being made. [Locality - On section line between Section 26 & 25 of T. 18 N., Range 24 E.] <sup>Between</sup> Sec. 26 & Sec. 25, T. 18 N., R. 24 E.



- $\Sigma$  1166 *Araneosiphon arizonum* (Burl & Small stem) Chinle - Triassic  
 Collected by Van Cleave in Jasper Forest (formerly 1<sup>st</sup> Forest) in February 1958. [see letter of March 21, 1958]  
 The Jasper Forest is in southern part of Petrified Forest National Monument, Arizona. The specimen is a small piece that appears to be burl wood containing buds. Specimen returned to Petrified Forest National Park. Contained small stem with phloem - a sucker surrounded by burl.
- $\Sigma$  1167 *Osmundites* sp. Chinle Triassic  
 Collected by Van Cleave and Daugherty near Tepee Buttes Aug 10, 1958. A small ~~chinese~~ stem that appears to be *Osmundites walkeri*. Appears to be tip of stem. [Loaned to Charles Miller at University of Michigan for study]
- $\Sigma$  1168 *Osmundites* Chinle Triassic  
 Collected from vicinity of the "Teepees" North West of Blue Mesa by Van Cleave + Daugherty Slide Made.
- $\Sigma$  1169 *Populus* sp. Verde Lake Beds  
 Collected by Col. Brady on Colorado River on lower Beaver Creek. above Davis Dam
- $\Sigma$  1170 *Palissya Braunii* Triassic of Virginia  
 Collected by Bock at Raccoon Lake Mine in Upper Triassic.

- Σ 1170 *Asterocarpus virginensis*? Upper Triassic of Virginia  
Collected By Wilhelm Bock at Raccoon  
Lake Mine.
- Σ 1172 Cretaceous  
Branch from south of Veterans Hospital near ~~Livermore~~  
Livermore, Calif. Turn of road at sign of Veteran's  
Hospital continue south approximately  $\frac{1}{2}$  mile  
beyond Hospital. Many chambered shells of  
*Baculites*.
- Σ 1173 *Platanus* Cretaceous?  
Collected at Witches Point of Alaska Peninsula  
Near Perryville. Appears to be leaves of Sycamore.
- Σ 1174 Eden Valley, Wyoming. Collected by Harry Beach  
who said the natives called this Chick Wood.  
Possibly they mean She Oak Wood!
- Σ 1175 Fossil wood picked up south of Boulder,  
Wyoming by Harry Beach. Locality on Highway 187.
- Σ 1176 *Cycadeoidea* sp. Chinle - Triassic  
~~Fossil~~ Stem collected by Philip Van Cleave  
in Petrified Forest National Monument in Summer  
of 1958.



Σ 1177 *Schilderia adamanica* Chinle-Triassic

Polished specimen of small stem collected by Philip F. Van Cleave and given to L.H. Daugherty to be presented to Dr Arnold at The University of Michigan. Section of stem shows forking and has two centers.

Σ 1178 *Schilderia adamanica* Chinle-Triassic

A polished specimen of same stem as Σ 1177. Donated to L.H. Daugherty by Philip F. Van Cleave August 1959. Collected by Van Cleave in Petrified Forest National Monument

Σ 1179 *Cycadeoidea* sp. Chinle-Triassic

A decorticated cycad stem with a large pith. Collected by Philip Van Cleave. A thin section was made for the Petrified Forest National Monument. The thin section was approximately 5" X 3" and took 20 hrs to grind. A polished hand specimen.

Σ 1180 *Cycadeoidea* sp. Chinle-Triassic

This specimen was collected on August 18, 1959 in Petrified Forest National Monument. It appears to be a fragment of outer part of stem and may have a flower along with leaf bases. Collected South East side of Blue Mesa.

Σ 1181 *Neocalamites* Chinle-Triassic

Collected at St Johns, Arizona on a small hill north and east of the graveyard east of town. The hill is red in color and in the mouth of a valley where a ruins of a house can be seen from the graveyard. The hill contains many pith casts upright and in place with the rhizomes running 8 to 10 feet from the upright pith casts.

Σ 1182 *Neocalamites* Chinle-Triassic

Collected August 1959 at same locality as Σ 1181. Pith cast of large stem.

- $\Sigma$  1183 *Neocalamites* Chinle Triassic  
 Pith cast of rhizome. Same locality as  $\Sigma$  1181.
- $\Sigma$  1184 *Neocalamites* Chinle Triassic  
 Pith cast of small stem  
 Locality same as  $\Sigma$  1181.
- $\Sigma$  1185 *Neocalamites* Chinle Triassic  
 Pith cast of small stem.  
 Locality same as  $\Sigma$  1181.
- $\Sigma$  1186 *Araneuroxylon?* containing roots in hollow stem. Chinle Triassic  
 The center of the stem is filled with ~~new~~ unknown roots. Collected in Petrified Forest National Monument <sup>Type Specimen</sup>
- $\Sigma$  1187 <sup>Stem</sup> ~~Root~~ of *Araneuroxylon* sp. Chinle Triassic  
 Collected in Petrified Monument Aug 17, 1959  
 Slide made. The stem shows excellent pith and primary xylem
- $\Sigma$  1188 ~~Root~~ Stem Chinle Triassic  
 Another section of specimen  $\Sigma$  1187
- $\Sigma$  1189 Chinle Triassic  
 Collected in Petrified Forest National Monument  
 August 1959.
- $\Sigma$  1190 *Schuldenia* Chinle Triassic  
 Collected in neck about 1 mile south of 66 highway  
 in Petrified Forest.



$\Sigma$  1191

Chinle-Triassic

Collected in Petrified Forest at Holbrook Arizona Aug. 1959

 $\Sigma$  1192

Root?

Chinle Triassic

Collected in August 1959.

 $\Sigma$  1193Small Stem of *Aracarioxylon*

Chinle-Triassic

Col. Aug. 1959 - Petrified Forest. Slides made  
Phloem, Pith and primary xylem present! $\Sigma$  1194Small Branch of *Schilderia*

Chinle Triassic

Col Aug. 1959 - Petrified Forest

 $\Sigma$  1195

Woodworthia?

Chinle Triassic

Collected in edge of Painted Desert about 1 mile  
south of 66 Highway in Petrified Forest National Monument.  
Back of Olsens. $\Sigma$  1196

Woodworthia

Chinle-Triassic

Collected in Petrified Forest - Aug. 1959.  
Piece of stem showing small branches. $\Sigma$  1197

Chinle Triassic

A small fragment of a root? Collected  
in Petrified Forest National Monument Aug. 1959 $\Sigma$  1198

Woodworthia

Chinle Triassic

Fragment of stem showing good short branches.  
Collected in Petrified Forest National Monument Aug. 1959

$\Sigma 1199$ 

Chinle - Triassic

A small root segment. Collected in Petrified Forest National Monument at Holbrook, Arizona. Aug. 1959

 $\Sigma 1200$ 

Copralite

Chinle - Triassic

Possibly the copralite of a *Phytosaurus*?  
Col. in ~~Petrified Forest National Monument~~. Neocalamites locality at St Johns, Arizona [See  $\Sigma 1181$  for Neocalamites]

 $\Sigma 1201$ *Schilderia adamantina*

Chinle - Triassic

A fragment of the stem showing excellent cell structure. Collected in Petrified Forest about one mile south of 66 Highway and at same just below rim of Painted Desert.

 $\Sigma 1202$ *Arancariorhiza joae*

Chinle - Triassic

A fragment of a hollow stem filled with mud and later petrified. The material in hollow portion contains many roots that grown into mud of hollow part of stem after stem had been lignified. Collected in Petrified Forest National Monument by Philip F. VanCleave - July 1959. Collected about 30 feet from the *Stopsidema* locality.

 $\Sigma 1203$ *Arancariorhiza joae*

Chinle - Triassic

Another fragment of  $\Sigma 1202$ .  
These pieces  $\Sigma 1202$ ,  $\Sigma 1203$ ,  $\Sigma 1205$ ,  $\Sigma 1210$ ,  $\Sigma 1211$  are all pieces of the holotype of *Arancariorhiza joae* sent in to the American Journal of Botany on Jan 21, 1963 for publication. Represents a new genus and new species.



Σ 1204

Chile-Triassic

A fragment of a stem containing a considerable amount of iron replacement. Collected in Petrified Forest National Monument Aug. 1959.

Σ 1205

*Arancarioxylon* ~~joal~~ holotype Chile-Triassic

A fragment of a hollow stem containing roots. Collected by Philip F. Van Cleave at same locality as Σ 1202 and Σ 1203

Σ 1206

*Arancarioxylon?*

Chile-Triassic

A section of a small root or a small stem. Collected in Petrified Forest National Monument. Aug 1959.

Σ 1207

*Arancarioxylon* sp.

Chile-Triassic

~~A small fragment~~ A branch 2 inches in diameter showing a good pith and excellent cell structure. Collected by Philip F. Van Cleave in Petrified Forest National Monument. Slides made. Pith well preserved. Slides made

Σ 1208

*Medulloea* sp. ?? or member of *Pentoxylea*?~~*Rhizoma* *Pentoxylea*~~ Chile-Triassic.

A portion of a stem <sup>from</sup> ~~three~~ or more <sup>steles</sup> ~~large~~ <sup>steles</sup> ~~within outer secondary xylem~~. A very important fossil collected along the "Neck" about 1 mile south of 66 Highway and  $\frac{1}{2}$  mile west of National Monument road leading to checking station. This locality is between the 66 Highway and the Puerco River. Collected Aug 17, 1959. Slides made. <sup>Shows several steles</sup> ~~Show a rhizome~~ <sup>each with secondary xylem</sup> ~~growing around a root~~! The devil must have planted it there to fool paleobotanists. The fossil is still an enigma. Close to *Medulloea stellata* but much larger stem, more likely member of *Pentoxylea*.

Σ 1209 *Araucarioxylon* Chinle-Triassic  
 Small stem fragment with good cell structure. Collected in Petrified Forest National Monument. Aug 18, 1959.

Σ 1210 *Araucarioxylon joae* (holotype) Chinle-Triassic  
~~*Araucarioxylon joae*~~  
 Fragment of hollow stem containing roots. Collected by Philip F. Van Cleave at same locality as Σ 1202, Σ 1203, and Σ 1205. Possibly these are fragments from the same log.

Σ 1211 *Araucarioxylon joae* Nov. gen + sp. Chinle-Triassic  
~~*Araucarioxylon joae*~~ Young roots  
 Fragment same as Σ 1210. Collected at same locality and possibly a fragment of same log. Slides made. Young roots excellent.  
Holotype of the genus *Araucarioxylon joae*

Σ 1212 Chinle-Triassic  
 A small water worn fragment of a root or stem. Col. by Pratt Greer at St John's Neocalamites Locality.

Σ 1213 Chinle-Triassic  
 Small rubbed branches. Collected by Philip Van Cleave in Petrified Forest National Monument. Slides made - Cell structure so poor identification impossible.

Σ 1214 Chinle-Triassic  
 Small stems collected by Philip F. Van Cleave in Petrified Forest National Monument.



- $\Sigma$  1215 *Nipadites* sp. Cretaceous or Eocene  
 The fruit of a palm collected in  
 Eastern Montana by Carrico and  
 given to Dr. Carl Duncan. November 1959
- $\Sigma$  1216 Alga Beltian? (Proterozoic)  
 Collected at Glacier National Park by  
 Fred Cochran of Oakland, California.
- $\Sigma$  1217 German Brown Coal Cretaceous  
 This lignite is from Chemnitz, Germany  
 [See  $\Sigma$  1098]
- $\Sigma$  1218 *Pecopteris vestita?* Pennsylvanian of Illinois  
 Col. at Mazon Creek, Northern Illinois  
 by Michael Diebihaga.
- $\Sigma$  1219 *Neuropteris (decipiens?)* Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga. Donated to San Jose State  
 College May 2, 1960
- $\Sigma$  1220 *Cyclopteris orbicularis* Brongniart Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga. Donated May 2, 1960
- $\Sigma$  1221 *Sphenopteris* Pennsylvanian  
 Collected at Mazon Creek in Northern  
 Illinois by Michael Diebihaga.  
 Donated to San Jose State College May 2, 1960.

- Σ 1222 *Annularia radiata* (Brongniart) Stenberg Pennsylvanian  
Collected at Mazon Creek in Northern Illinois  
by Michael Diebihaga. Donated May 2, 1960.
- Σ 1223 *Pecopteris* Pennsylvanian  
Collected near Mazon Creek in Northern Illinois  
by Michael Diebihaga. Donated to San Jose State  
College on May 2, 1960.
- Σ 1224 *Lepidodendron rigens* Lesquereux Pennsylvanian  
Portion of a single leaf. Col. at Mazon Creek  
in Northern Illinois by Michael Diebihaga.  
Donated to San Jose State College on May 2, 1960.
- Σ 1225 *Stigmaria* ? Pennsylvanian  
Col. at Mazon Creek in Northern Illinois by  
Michael Diebihaga. Donated May 2, 1960.
- Σ 1226 *Annularia* sp. Pennsylvanian  
Col. at Mazon Creek in Northern Illinois by  
Michael Diebihaga. Donated to San Jose State College  
May 2, 1960.
- Σ 1227 *Annularia* sp. Pennsylvanian  
Col. at Mazon Creek in Northern Illinois by  
Michael Diebihaga. Donated May 2, 1960.
- Σ 1228 *Annularia* sp. Pennsylvanian  
Col. at Mazon Creek in Northern Illinois by  
Michael Diebihaga. Donated May 2, 1960.



- $\Sigma$ 1229 *Odontopteris* Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois by  
 Michael Diebihaga. Donated May 2, 1960.
- $\Sigma$ 1230 *Neuropteris* Pennsylvanian  
 The amphletia of a frond. Col. at Mazon  
 Creek in Northern Illinois by Michael Diebihaga.  
 Donated May 2, 1960.
- $\Sigma$ 1231 *Pecopteris* Pennsylvanian  
 Col. at Mazon Creek in Northern Illinois  
 by Diebihaga and donated to San Jose State College on May 2, 1960.
- $\Sigma$ 1232 *Pecopteris* Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga.
- $\Sigma$ 1233 *Pecopteris* Pennsylvanian  
 Collected at Mazon Creek in Northern  
 Illinois by Michael Diebihaga. Donated May 2, 1960.
- $\Sigma$ 1234 *Sigillaria* sp. Pennsylvanian  
 Resembles *S. campylochaena* [Pl. LXIX - D. White  
 fossil coal Flora of Missouri - U.S.G.S. Mon. XXXVII]  
 A small fragment of stem surface. Collected at  
 Mazon Creek in Northern Illinois by Michael Diebihaga
- $\Sigma$ 1235 *Pecopteris* Pennsylvanian  
 Col. same as  $\Sigma$ 1234

- $\Sigma 1236$  Pecopteris Pennsylvanian  
Collected at Mazon Creek in Northern Illinois  
by Michael Diebihaga and donated to San Jose  
State College on May 2, 1960.
- $\Sigma 1237$  Pecopteris Pennsylvanian  
Same collection as  $\Sigma 1236$
- $\Sigma 1238$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1239$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1240$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1241$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1242$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1243$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$
- $\Sigma 1244$  Pecopteris Pennsylvanian  
Same Col. as  $\Sigma 1236$



$\Sigma 1245$  Pecopteris Pennsylvanian  
Collected at Mazon Creek in Northern Illinois by Michael Diebihaga and donated to San Jose State College on May 2, 1960.

$\Sigma 1246$  Lepidodendron (Stem Surface) Pennsylvanian  
Col. same as  $\Sigma 1245$

$\Sigma 1247$  Lepidodendron (Branch) Pennsylvanian  
Col. same as  $\Sigma 1245$ .

$\Sigma 1248$  Lepidodendron (Branch) Pennsylvanian  
Col. same as  $\Sigma 1245$

$\Sigma 1249$  Pennsylvanian  
Wood fragment. Col. same as  $\Sigma 1245$

$\Sigma 1250$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1245$

$\Sigma 1251$  Pennsylvanian  
Col. same as  $\Sigma 1245$

$\Sigma 1252$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1245$

$\Sigma 1253$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1245$

- $\Sigma$ 1254 Pecopteris Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois by Michael Brehkaga and donated To San Jose State College on May 2, 1960.
- $\Sigma$ 1255 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$ 1254
- $\Sigma$ 1256 Stem surface Pennsylvanian  
 Col. same as  $\Sigma$ 1254
- $\Sigma$ 1257 Stem surface? Pennsylvanian  
 Col. same as  $\Sigma$ 1254.
- $\Sigma$ 1258 Lepidostrobus Pennsylvanian  
 Col. same as  $\Sigma$ 1254  
 Resembles *Lepidostrobus jenneyi* White.  
 See plate LIX of U.S.G.S. Monograph XXXVII  
 Fossil Flora of the Lower Coal Measures - David White.
- $\Sigma$ 1259 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$ 1254
- $\Sigma$ 1260 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$ 1254
- $\Sigma$ 1261 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$ 1254



$\Sigma 1262$  Pecopteris Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga and donated to  
 San Jose State College on May 2, 1960.

$\Sigma 1263$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1262$ .

$\Sigma 1264$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1262$

$\Sigma 1265$  Odontopteris? Pennsylvanian  
 Col. same as  $\Sigma 1262$

$\Sigma 1266$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1262$ .

$\Sigma 1267$  Pennsylvanian  
 Fruit of Neuropteris?  
 Col. same as  $\Sigma 1262$ .

$\Sigma 1268$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1262$

$\Sigma 1269$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1262$

- $\Sigma 1270$  Pecopteris Pennsylvania  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga and donated to  
 San Jose State College on May 2, 1960.
- $\Sigma 1271$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1270$ .
- $\Sigma 1272$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1270$ .
- $\Sigma 1273$  Calamites? Branch with whorl of leaves. Pennsylvanian  
 Col. same as  $\Sigma 1270$
- $\Sigma 1274$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1270$
- $\Sigma 1275$  Neuropteris Pennsylvanian  
 Col. same as  $\Sigma 1270$
- $\Sigma 1276$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1270$
- $\Sigma 1277$  Lepidodendron? Leaves. Pennsylvanian  
 Col. same as  $\Sigma 1270$ .
- $\Sigma 1278$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1270$



$\Sigma$  1279 Pecopteris Pennsylvanian  
 Collected at Mazon Creek in Northern Illinois  
 by Michael Diebihaga and donated to  
 San Jose State College on May 2, 1960.

$\Sigma$  1280 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1279

$\Sigma$  1281 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1279

$\Sigma$  1282 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1279

$\Sigma$  1283 Neuropteris Pennsylvanian  
 Col. same as  $\Sigma$  1279

$\Sigma$  1284 Sphenophyllum (?) Pennsylvanian  
 Col. same as  $\Sigma$  1279

$\Sigma$  1285 Euproops danae Pennsylvanian  
 Collected at Coal City, Illinois and  
 donated by Michael Diebihaga. Identification  
 made by unknown person. Appears to be a trilobite?

$\Sigma$  1286 Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois. Donated to San Jose State College  
 on May 2, 1960.

$\Sigma 1287$ 

Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek in  
 Northern Illinois and donated to San Jose  
 State College on May 2, 1960.

 $\Sigma 1288$ 

Pecopteris

Col. same as  $\Sigma 1287$ .

Pennsylvanian

 $\Sigma 1289$ 

Pecopteris

Col. same as  $\Sigma 1287$ 

Pennsylvanian

 $\Sigma 1290$ 

Pecopteris

Col. same as  $\Sigma 1287$ 

Pennsylvanian

 $\Sigma 1291$ 

Neuropteris (Amphilebia)

Col. same as  $\Sigma 1287$ 

Pennsylvanian

 $\Sigma 1292$ 

Pecopteris

Col. same as  $\Sigma 1287$ 

Pennsylvanian

 $\Sigma 1293$ 

Pennsylvanian  
 Col. same as  $\Sigma 1287$ .

 $\Sigma 1294$ 

Neuropteris

Col same as  $\Sigma 1287$ 

Pennsylvanian

 $\Sigma 1295$ 

Neuropteris

Col. same as  $\Sigma 1287$ 

Pennsylvanian



- $\Sigma 1296$  Neuropteris Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois and donated to San Jose State  
 College on May 2, 1960.
- $\Sigma 1297$  Callipteridium Pennsylvanian  
 Col. same as  $\Sigma 1296$ .
- $\Sigma 1298$  Pennsylvanian  
 Col. same as  $\Sigma 1296$
- $\Sigma 1299$  Pennsylvanian  
 Col. same as  $\Sigma 1296$
- $\Sigma 1300$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1296$ .
- $\Sigma 1301$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1296$ .
- $\Sigma 1302$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1296$
- $\Sigma 1303$  Neuropteris Pennsylvanian  
 Col. same as  $\Sigma 1296$
- $\Sigma 1304$  Pennsylvanian  
 Col. same as  $\Sigma 1296$

$\Sigma 1305$  Pecopteris Pennsylvanian  
 Collected by Michael Diebihaga at Mazon Creek  
 in Northern Illinois and donated to San Jose  
 State College on May 2, 1960.

$\Sigma 1306$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1307$  Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1308$  Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1309$  Neuropteris Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1310$  Neuropteris Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1311$  Annularia Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1312$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1305$

$\Sigma 1313$  Pennsylvanian  
 Col. same as  $\Sigma 1305$



- $\Sigma 1314$  Annularia Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois and donated to San Jose  
 State College on May 2, 1960.
- $\Sigma 1315$  Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1316$  Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1317$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1314$
- $\Sigma 1318$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1319$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1320$  Annularia Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1321$  Annularia Pennsylvanian  
 Col. same as  $\Sigma 1314$ .
- $\Sigma 1322$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1314$

- |               |  |                           |
|---------------|--|---------------------------|
| $\Sigma 1323$ | <i>Lepidophyllum</i> (majus?)<br>Collected by Michael Diebihaga on Mazon Creek<br>in Northern Illinois. Donated To San Jose State College<br>on May 2, 1960. | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1324$ | <i>Pecopteris</i><br>Col. same as $\Sigma 1323$ .  | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1325$ | <i>Pecopteris</i><br>Col. same as $\Sigma 1323$ .  | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1326$ | <i>Neuropteris</i><br>Col. same as $\Sigma 1323$   | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1327$ | <i>Pecopteris</i><br>Col. same as $\Sigma 1323$ .  | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1328$ | <i>Allothopteris</i><br>Col. same as $\Sigma 1323$ .   | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1329$ | <i>Codonospermum</i> ?<br>Col. same as $\Sigma 1323$   | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1330$ | <i>Pecopteris</i><br>Col. same as $\Sigma 1323$  | Pennsylvanian<br>$\Sigma$ |
| $\Sigma 1331$ | <i>Callipteridium sullivanti</i> (?)<br>Col. same as $\Sigma 1323$   | Pennsylvanian<br>$\Sigma$ |



- $\Sigma$  1332 Pecopteris Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois and donated to San Jose State College  
 on May 2, 1960.
- $\Sigma$  1333 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1332.
- $\Sigma$  1334 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1332.
- $\Sigma$  1335 Annularia Pennsylvanian  
 Col. same as  $\Sigma$  1332.
- $\Sigma$  1336 Calamocladus (or Astrophyllites) equisetiformis Pennsylvanian  
 Col. same as  $\Sigma$  1332
- $\Sigma$  1337 Annularia Pennsylvanian  
 Col. same as  $\Sigma$  1332
- $\Sigma$  1338 Pennsylvanian  
 Col. same as  $\Sigma$  1332
- $\Sigma$  1339 Annularia? Pennsylvanian  
 Col. same as  $\Sigma$  1332
- $\Sigma$  1340 Pennsylvanian  
 Col. same as  $\Sigma$  1332

- $\Sigma 1341$  Annularia Pennsylvanian  
Collected on Mazon Creek by Michael Diebihaga and  
donated to San Jose State College on May 2, 1966.
- $\Sigma 1342$  Callipteridium? Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1343$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1344$  Skin of an amphibian?? Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1345$  Neuropteris Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1346$  Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1347$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1348$  Sphenophyllum Pennsylvanian  
Col. same as  $\Sigma 1341$ .
- $\Sigma 1349$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1341$ .



- $\Sigma 1350$  Pecopteris Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois and donated to San Jose  
 State College on May 2, 1960.
- $\Sigma 1351$  Sphenophyllum Pennsylvanian  
 Col. same as  $\Sigma 1350$ .
- $\Sigma 1352$  Lycopodites meekii? Pennsylvanian  
 Col. same as  $\Sigma 1350$
- $\Sigma 1353$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1350$ .
- $\Sigma 1354$  Pennsylvanian  
 A piece of wood Col. same as  $\Sigma 1350$ .
- $\Sigma 1355$  Pennsylvanian  
 Col. same as  $\Sigma 1350$ .
- $\Sigma 1356$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1350$
- $\Sigma 1357$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1350$
- $\Sigma 1358$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1350$ .

- $\Sigma 1359$  Annularia Pennsylvanian  
Collected by Michael Diebihaga on  
Mazon Creek in Northern Illinois and donated to  
San Jose State College on May 2, 1960.
- $\Sigma 1360$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1361$  Neuropteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1362$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1363$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1364$  Annularia Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1365$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1366$  Pennsylvanian  
Col. same as  $\Sigma 1359$ .
- $\Sigma 1367$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1359$ .



- $\Sigma$  1368 Pecopteris Pennsylvanian  
 Collected by Michael Diebihaga on  
 Mazon Creek in Northern Illinois and donated to  
 San Jose State College on May 2, 1960.
- $\Sigma$  1369 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1368.
- $\Sigma$  1370 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1368.
- $\Sigma$  1371 Pecopteris Pennsylvanian  
 Col. same as  $\Sigma$  1368
- $\Sigma$  1372 Pennsylvanian  
 Col. same as  $\Sigma$  1368
- $\Sigma$  1373 Pennsylvanian  
 Col. same as  $\Sigma$  1368
- $\Sigma$  1374 Pennsylvanian  
 Col. same as  $\Sigma$  1368
- $\Sigma$  1375 Pennsylvanian  
 Col. same as  $\Sigma$  1368
- $\Sigma$  1376 Same fossil as  $\Sigma$  1372 Pennsylvanian  
 Col. same as  $\Sigma$  1368.

$\Sigma 1377$ 

Pennsylvanian

Collected by Michael Diebihaga on Mazon Creek  
in Northern Illinois and donated to San Jose  
State College on May 2, 1966.

 $\Sigma 1378$ 

Pecopteris

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1379$ 

Pine of bone?

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1380$ 

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1381$ 

Sphenophyllum

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1382$ 

Pecopteris

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1383$ 

Pecopteris

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1384$ 

Pennsylvanian

Col. same as  $\Sigma 1377$  $\Sigma 1385$ 

Pennsylvanian

Col. same as  $\Sigma 1377$



- $\Sigma 1386$  Annularia? Pennsylvanian  
Collected by Michael Diebihaga on  
Mazon Creek in Northern Illinois and donated to  
San Jose State College on May 2, 1960.
- $\Sigma 1387$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1386$
- $\Sigma 1388$  Pennsylvanian  
Col. same as  $\Sigma 1386$
- $\Sigma 1389$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1386$ .
- $\Sigma 1390$  Pennsylvanian  
Col. same as  $\Sigma 1386$
- $\Sigma 1391$  Pennsylvanian  
Col. same as  $\Sigma 1386$ .
- $\Sigma 1392$  Lepidophyllum Pennsylvanian  
Col. same as  $\Sigma 1386$
- $\Sigma 1393$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1386$ .
- $\Sigma 1394$  Pecopteris Pennsylvanian  
Col. same as  $\Sigma 1386$ .

$\Sigma 1395$  Pecopteris Pennsylvanian  
 Collected by Michael Diebihaga on Mazon Creek  
 in Northern Illinois and donated to San Jose  
 State College on May 2, 1960.

$\Sigma 1396$  Pennsylvanian  
 Col. same as  $\Sigma 1395$ .

$\Sigma 1397$  Pennsylvanian  
 Col. same as  $\Sigma 1395$

$\Sigma 1398$  Pecopteris Pennsylvanian  
 Col. same as  $\Sigma 1395$

$\Sigma 1399$  Annularia (a scrap) Pennsylvanian  
 Col. same as  $\Sigma 1395$

$\Sigma 1400$  Pennsylvanian  
 Col. same as  $\Sigma 1395$ .

Note:

Determinations from  $\Sigma 1218$  to  $\Sigma 1400$  were made  
 at sight without aid of a handlense and  
 should be carefully reviewed. There is a  
 good possibility that a number labeled Pecopteris  
 possibly belong to another genus. No attempt  
 was made to determine species L.H. 19.



$\Sigma 1401$ 

Chinle Triassic

Collected by Philip Van Cleave in The Petrified Forest National Monument below the south escarpment of Blue Mesa. The fossil consists of a rather large piece of stem and a number of fragments. Collected a short distance from where  $\Sigma 1165$  *Williamsonia* sp. was collected.

 $\Sigma 1402$ *Woodworthia*? (Branch) Chinle Triassic

Collected from bad lands just north of Olsen property and east of the park road. Collected by Philip Van Cleave. Petrified Forest National Monument, Arizona.

 $\Sigma 1403$ 

Chinle-Triassic

Collected in same locality as  $\Sigma 1402$  by Philip Van Cleave.

 $\Sigma 1404$ 

Chinle-Triassic

Stem fragment (Branch) collected by Philip Van Cleave in  $\Sigma 1402$  locality.

 $\Sigma 1405$ 

Chinle-Triassic

Branch collected by Van Cleave in locality described in  $\Sigma 1402$ .

 $\Sigma 1406$ 

Branch collected by Philip Van Cleave in locality described in  $\Sigma 1402$

 $\Sigma 1407$ 

*Woodworthia* (Branch), Chinle Triassic  
Col. by Philip Van Cleave locality described for  $\Sigma 1402$

$\Sigma 1408$ 

Chinle - Triassic

Branch collected by Philip Van Cleave from bad lands just north of Olsen Property and east of the park road. Petrified Forest National Monument, Holbrook, Arizona.

 $\Sigma 1409$ 

Woodworthia (Branch) Chinle-Triassic

Col. by Philip Van Cleave from locality described in  $\Sigma 1408$ . [Slide made pith worthless]

 $\Sigma 1410$ 

Cranioscyphus

Chinle Triassic

Branch split showing pith. Col. by Philip Van Cleave from locality described for  $\Sigma 1408$ .

 $\Sigma 1411$ 

Woodworthia (Branch)

Chinle Triassic

Col. by Philip Van Cleave in locality described for  $\Sigma 1408$ . [Slide made - pith worthless]

 $\Sigma 1412$ 

Chinle - Triassic

Small branch col. by Philip Van Cleave in locality described for  $\Sigma 1408$

 $\Sigma 1413$ 

Chinle Triassic

Branch collected by Philip Van Cleave in locality described for  $\Sigma 1408$ .

 $\Sigma 1414$ 

Chinle - Triassic

Branch Collected by Van Cleave + Daugherty in the Black Forest, Painted Desert, Petrified Forest National Monument. Summer of 1960.



$\Sigma 1415$ 

Chinle Triassic

Small branch collected by Van Cleave and Daugherty in the Black Forest situated in the Painted Desert, Petrified Forest National Monument. July 1960.

 $\Sigma 1416$ 

Chinle-Triassic

Small branch collected by Van Cleave & Daugherty in locality described for  $\Sigma 1415$ .

 $\Sigma 1417$ 

Chinle Triassic

Small branch collected by Van Cleave & Daugherty in locality described for  $\Sigma 1415$ .

 $\Sigma 1418$ 

Chinle Triassic

Small branch col. by Van Cleave & Daugherty in locality described for  $\Sigma 1415$ .

 $\Sigma 1419$ 

Woodworthia

Chinle Triassic

Small branch col. by Van Cleave & Daugherty in locality described for  $\Sigma 1415$ .

 $\Sigma 1420$ 

Chinle-Triassic

Small flattened branch collected by Van Cleave & Daugherty in locality described for  $\Sigma 1415$ .

 $\Sigma 1421$ 

Chinle Triassic

Col. by Van Cleave & Daugherty in locality same as  $\Sigma 1415$ .

$\Sigma 1422$ 

Chinle-Triassic

This rather large branch was collected in the Black Forest of the Painted Desert by Van Cleave & Daugherty. The locality is within the boundaries of the Petrified Forest National Monument, near Holbrook, Arizona. This stem may be a specimen of *Woodworthia* but has a chance of being a new species.

 $\Sigma 1423$ 

Another odd looking specimen that should be sectioned. Collected by Van Cleave and Daugherty in locality described for  $\Sigma 1422$ . July 1960.

 $\Sigma 1424$ *Cycasoides scottii* (Stokes) [Bennettites]

Slide donated to L.H. Daugherty by Dr E.P. Wiland of Yale. *Cycasoides scottii* was collected at Saccomb <sup>valley of Upper</sup> ~~Chine~~ <sup>Chine</sup>. The slide shows transverse sections of the pinnae of young fronds and also the Ramenta. This is from type specimen described by Dr. M. Stokes [Slide broken and sections transferred to a new slide. The balsam dissolved by xylol over week end and the thin sections transferred to a new slide under xylol.] Good photomicrographs made.

 $\Sigma 1425$ *Codonospermum* ? [Seed] Upper Triassic Chinle

Collected by Philip Van Cleave in Petrified Forest National Monument, Holbrook, Arizona. The new seed locality is near agate bridge and appears to contain seed and scraps of leaves.



- $\Sigma$  1426 Schilderia Arizona Triassic  
 Specimen showing fluting with entrapped phloem  
 Collected in Petrified Forest National Monument  
 in gully back of Olsen's Store. August 1961
- $\Sigma$  1427 Schilderia Chinle Triassic  
 Collected at same locality as  $\Sigma$  1426  
 Specimen shows bark.
- $\Sigma$  1428 Schilderia Chinle Triassic  
 Branch segment from Painted Desert in  
 Petrified Forest National Monument about one mile  
 West of Painted Desert Inn. August 1961
- $\Sigma$  1429 Schilderia Chinle Triassic  
 Locality same as  $\Sigma$  1428
- $\Sigma$  1430 Schilderia Chinle Triassic  
 Locality same as  $\Sigma$  1428.
- $\Sigma$  1431 Sagenopteris Late Lower Cretaceous  
 From Carbona Quadrangle 15 miles  
 south of Tracey. Horsetown formation  
 Bed contains abundant ammonites, smooth shelled  
 peckins Synsyclonema, and partially petrified wood.  
 The chambered shell is Leconteites lecontei.  
 Collected August 1961.
- $\Sigma$  1432 Cycadioidea sp. Morrison Jurassic  
 Collected by Thomas M. Rile at Escalante,  
 Utah. Collected  $\frac{1}{4}$  mile from the City dumps and  
 kept to right and go higher up hill.  
 A beautiful specimen but worthless as far as  
 cell structure is concerned.

- $\Sigma$  1433 *Otozamites powelli* Triassic of Arizona  
 Collected by L. H. Daugherty in Petrified Forest  
 National Monument near Tepee Buttes.
- $\Sigma$  1434 *Macrotaeniopteris* Triassic of Virginia  
 Collected by Wilhelm Bock.
- $\Sigma$  1435 *Baiera* ? Lockatong - Triassic  
 Collected at Carversville, Pennsylvania  
 by Wilhelm Bock.
- $\Sigma$  1436 Tertiary  
 Collected near Pittsburg, California and sent  
 for identification by Dr. Chaney. Collected as  
 float material and exact formation not known.  
 No. 294 by Dr. Chaney.
- $\Sigma$  1437 Tertiary  
 Same locality as  $\Sigma$  1436. No. 170
- $\Sigma$  1438 Tertiary  
 Same locality as  $\Sigma$  1436 No. 169
- $\Sigma$  1439 *Quercus* Tertiary  
 Same locality as  $\Sigma$  1436 No. 269
- $\Sigma$  1440 Chinle - Triassic of Arizona  
 Small stem approximately 30 inches in length  
 and  $3\frac{1}{2}$  inches in greatest diameter. The stem tapers  
 to a diameter of 3 inches. Collected by Philip Van Cleave  
 in situ. Approximately one half of the stem embedded  
 in Chinle bentonite and the other half broken in to sections  
 and scattered on the surface. Locality Sect. 5, R24E, T16N.  
 In Rainbow Forest of the Petrified Forest National Monument.  
 No. 1440



Σ 1441

*Dadapylon chaneyi* ??

Triassic of Arizona

This specimen consisting of two short sections of a stem  $3\frac{1}{4}$  inches in greatest diameter and sent to me by Philip F. Van Cleave. It appears to be another specimen of *Dadapylon chaneyi* from examination with hand lens but may prove to be a new species when thin sections are made. Exact locality unknown but was obtained in Painted Desert Section on west boundary, perhaps as far east as Chambers.

Σ 1442

*Psaronius* sp.

Arizona

This specimen was sent by the Head Naturalist of Petrified Forest National Park and received in the mail on April 16, 1964. Since no letter accompanied the fossil more information will be added later. This is a species of *Psaronius* that appears to be closely related to species from the Permian of Brazil and and very closely related to the Middle Permian of Chemnitz Germany. However, the above is based on a handler's determination. The specimen was collected by Naturalist Henderson in the Tepees area where Dr. Seff, Van Cleave, Wills, Daugherty and daughter Suzy examined some stumps that Dr. Seff considered to be in place. Since the specimen represents a plant typical of Lower and Middle Permian it was carried into the area by streamas or brought into the region by either Indians or Tourists. The approximate locality Sec. 14, R24E, T18N. The locality is  $\frac{3}{4}$  mile north of Blue Mesa. The specimen was found on surface as float material and original locality is problematical. Since Permian fusulinids and one trilobite was found in certain localities along with the Lower Cretaceous *Templekya*, the float material was probably transported into the area by streamas rather than Indians or Tourists, however, there are Indian ruins in the region.

Σ 1443

Eocene?

The fossil wood replaced by limonite came from red clay sand with conglomerate at the base which rests upon Tuscaloosa (Cretaceous) and other Coastal Plain formations in South Carolina and overlaps these formations to rest on the crystalline rocks of the Piedmont. Wood sent in by Stephen Taber, University of South Carolina [Dept. of Geology] Columbia, South Carolina.

Fossil received April 1951. The wood is a conifer and Taber believed it to be a Taxodium or a Sequoia. I do not remember ~~how~~ my identification of this wood. The petrification is interesting as wood replaced by limonite is not common.

Σ 1444

A fossil wood from the Petrified Forest of Arizona furnished by Van Cleave. Wood is Triassic and appears to have structure worth examination

Σ 1445

Pecky rot in a stem from Chinle of Ariz - Pet. Forest of Arizona. Described in L.H.D. book.

Σ 1446

These are fossil woods from east side of Lake Lahontan

Σ 1447

Southwest of Fallon Nev. I. They are sent in for

Σ 1448

identification by Mr. Claude R. Mowry of 3325 Smith Drive Reno, Nev. Mailed January 1954.

Σ 1449

Small fragments found in association with the stem of a tree fern north of the Van Cleave Residence (North of Agate bridge Residence) Petrified Forest Nat'l Monument. Check to see if these roots might correspond to the foreign roots in the stem of the tree fern.

Σ 1450 Era

Σ 1450 Fragment of fossil wood? Government gravel pit. Near Cameroun 1935 by L. F. Brady.



Σ 1451 Five small sections from north of Olsen's  
and east of the monument road. One fragment of  
Charley Jacobs "fern". One seed in plastic box.

3194 A  
cret. limonite replacement  
get info - for Dior

Frank Hankins

Cr.

May 31, 1968 Sent Check

Jan 25, 1969 Check

Nov 10, 1968 Check

\$	20	00 <sup>1</sup>
	34	16
	54	16
	31	17

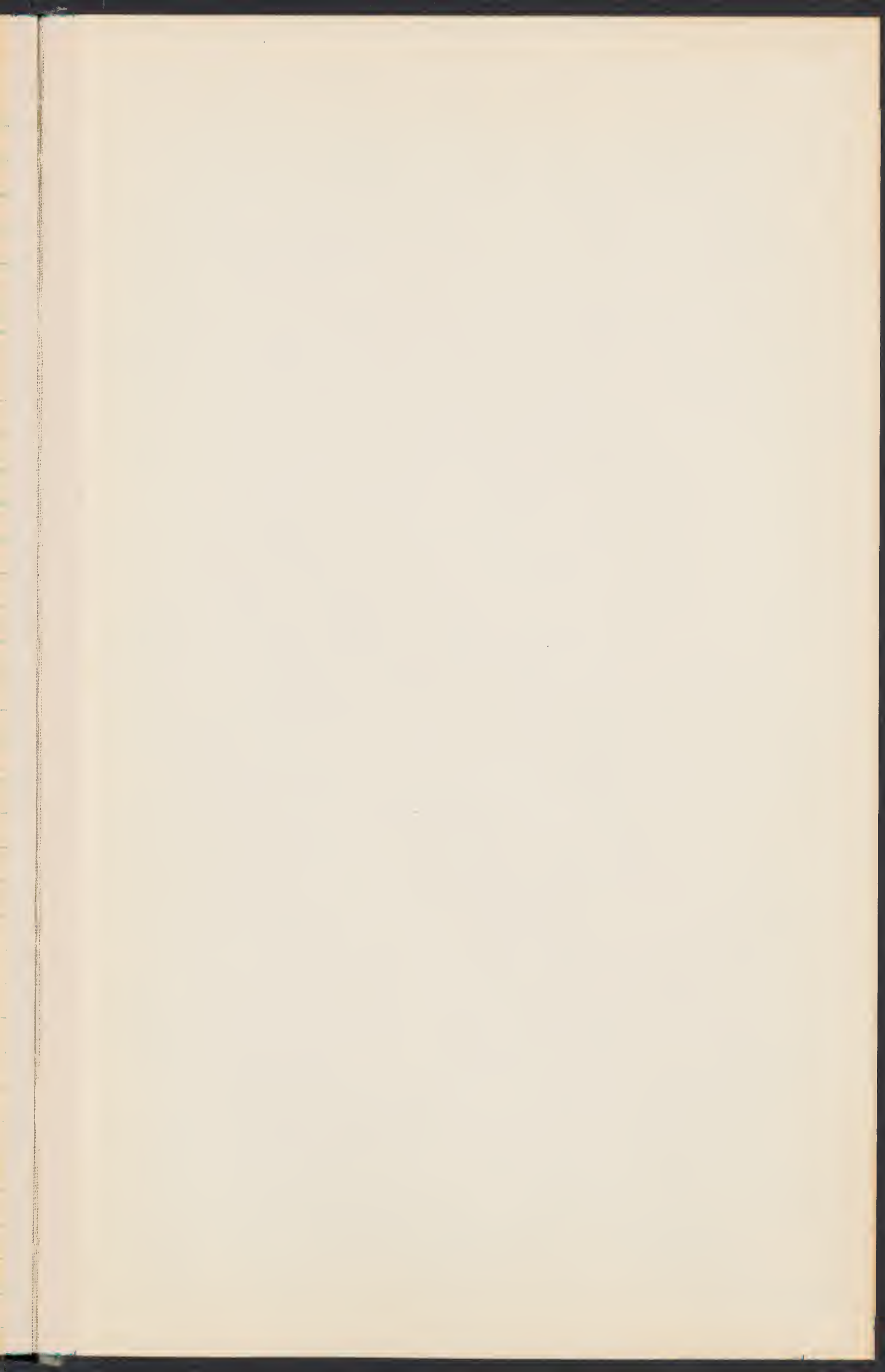


Db.

2 Agfa films	\$ 2	64
10 Agfa IFF films	13	13
Sept 29, 1968 Boveri Printing Paper 8x10" 500 sheets	38	39
	54	16
Mar 18, 1969 Dekatol developer (to make 1 gallon)	1	31
Mar 19, 1969 Negafix	10	25
" " Acid Fixing		90
May 29, 1969 Envelopes + Markers 100 To 200	2	00
" " Envelopes + Markers 200 To 300	2	00
" " 10 Agfa IFF 36 exp. - 35 mm	12	50
May 30, 1969 Dekatol developer	1	31
" " " Acid Fixing		90
	31	17
June 10, 1970 20 Adox films 35 mm - 36 exp	22	10
June 13, 1970 Rodonal Developer	1	50







295  
81



